WHAT IS CLAIMED IS

1. An oxidation reactor comprising a reactor body and a manhole nozzle projecting from the reactor body, in which a partition plate is provided to separate an inside of the manhole nozzle and an inside of the reactor body from each other.

2. An oxidation reactor according to claim 1, wherein the manhole nozzle whose inside is separated from the inside of the reactor body by the partition plate, is provided with a means for feeding an inert gas thereinto.

3. An oxidation reactor according to claim 2, wherein the inert gas is a nitrogen gas.

4. An oxidation reactor according to claim 2, wherein the inert gas is a waste gas formed by burning a combustible gas that is obtained after recovering acrylic acid from an oxidation reaction product gas.

5. An oxidation reactor according to claim 1, further comprising a heating means and/or a heat-retaining means for the manhole nozzle whose inside is separated from the inside of the reactor body by the partition plate.

6. An oxidation reactor according to claim 1, further comprising a sampling tube for sampling an easily-polymerizable compound-containing gas, said sampling tube having a double tube structure capable of feeding a heating medium into an outer tube thereof.

7. An oxidation reactor according to claim 1, wherein an oxidation catalyst is present within the reactor body.

8. A process for producing (meth)acrylic acids by

subjecting propane, propylene or isobutylene to catalytic gas-phase oxidation reaction in an oxidation reactor for producing (meth)acrolein or (meth)acrylic acid, wherein the oxidation reactor as defined in any one of claims 1 to 7 is used as the oxidation reactor.

9. An oxidation reactor comprising a reactor body and a nozzle projecting from the reactor body, in which the nozzle is provided with a means for feeding an inert gas thereinto.

10. An oxidation reactor according to claim 9, wherein the nozzle is any of a manhole nozzle, a measuring device-mounting nozzle, a sampling nozzle, and a rupture disk-fitting nozzle.

11. An oxidation reactor according to claim 10, wherein the nozzle is provided with a heating means and/or a heat-retaining means.

12. An oxidation reactor according to claim 9, wherein an oxidation catalyst is present within the reactor body.

13. An oxidation reactor according to claim 9, wherein the inert gas is a nitrogen gas.

14. An oxidation reactor according to claim 9, wherein the inert gas is a waste gas formed by burning a combustible gas that is obtained after recovering acrylic acid from an oxidation reaction product gas.

15. A process for producing (meth)acrylic acids by subjecting propane, propylene or isobutylene to catalytic gas-phase oxidation reaction for producing (meth)acrolein or (meth)acrylic acid, wherein the oxidation reactor as defined in any one of claims 9 to 14 is used as the oxidation reactor.

16. A method for analyzing an easily-polymerizable compound by introducing a gas containing the easily-polymerizable compound into an analyzing apparatus through a sampling tube, wherein the sampling tube is a double tube, and a heating medium is fed into an outer tube of the sampling tube.

17. A method according to claim 16, wherein the gas containing the easily-polymerizable compound is a reaction gas obtained by subjecting propane, propylene or isobutylene to catalytic gas-phase oxidation reaction.

18. A method according to claim 16, wherein the gas containing the easily-polymerizable compound is maintained at a temperature not less than a dew point thereof.

19. A method according to claim 16, wherein after completion of the analysis, the sampling tube is cleaned by flowing steam through an inner tube thereof.

20. A method according to claim 16, wherein during stopping the analysis, air or a nitrogen gas is flowed through an inner tube of the sampling tube.